

25. A biochamber comprising a lumen and an outer wall, wherein said outer wall comprises Sertoli cells and defines said lumen.

26. The biochamber according to claim 25, wherein junctional complexes are formed between adjacent Sertoli cells of said outer wall.

27. The biochamber according to claim 25, wherein said Sertoli cells are arranged as a monolayer.

28. The biochamber according to claim 25, wherein said biochamber further comprises a plurality of non-Sertoli cells contained within said lumen, and wherein said outer wall encapsulates said plurality of non-Sertoli cells.

29. The biochamber according to claim 28, wherein said plurality of non-Sertoli cells are selected from the group consisting of neuronal cells, NT2 cells, pancreatic islet cells, dopaminergic cells, and bovine chromaffin cells.

30. The biochamber according to claim 28, wherein said plurality of non-Sertoli cells comprises pancreatic islet cells.

31. The biochamber according to claim 28, wherein said plurality of non-Sertoli cells comprises neuronal cells.

32. The biochamber according to claim 29, wherein said neuronal cells are NT2 neurons.

33. The biochamber according to claim 28, wherein said plurality of non-Sertoli cells comprises secreting cells.

34. The biochamber according to claim 28, wherein said plurality of non-Sertoli cells includes at least one therapeutic cell.

35. The biochamber according to claim 28, wherein said Sertoli cells of said outer wall provide immunoprotection to said plurality of non-Sertoli cells within said lumen upon transplantation of said biochamber.

36. The biochamber according to claim 28, wherein said Sertoli cells are arranged as a monolayer.

37. The biochamber according to claim 36, wherein said biochamber is spherical in shape.

38. The biochamber according to claim 25, wherein said biochamber is spherical in shape.

39. A biochamber comprising a lumen, an outer wall, and a plurality of non-Sertoli cells contained within said lumen, wherein said outer wall comprises a monolayer of Sertoli cells that define said lumen, wherein said monolayer of Sertoli cells encapsulate said plurality of non-Sertoli cells, and wherein junctional complexes are formed between adjacent Sertoli cells of said outer wall.

40. A method of making a biochamber comprising the steps of:
co-culturing Sertoli cells and non-Sertoli cells; and
organizing the Sertoli cells and the non-Sertoli cells, wherein the Sertoli cells form an outer wall defining a lumen, and wherein the non-Sertoli cells are contained within the lumen.

41. The method according to claim 40, wherein said co-culturing step is carried out under microgravity conditions.

42. The method according to claim 40, further comprising the step of segregating the Sertoli cells away from the non-Sertoli cells before the Sertoli cells and the non-Sertoli cells are organized.

43. The method according to claim 42, wherein said segregating step comprises inducing the epithelialization and polarization of the Sertoli cells.

44. The method according to claim 43, wherein said induction of epithelialization and polarization of the Sertoli cells comprises adding a compound which causes epithelialization and polarization of the Sertoli cells.

45. The method according to claim 44, wherein the compound comprises a solubilized basement membrane preparation.

46. The method according to claim 40, wherein the non-Sertoli cells comprise therapeutic cells.

47. The method according to claim 40, wherein the non-Sertoli cells comprise secreting cells.

48. The method according to claim 40, wherein junctional complexes are formed between adjacent Sertoli cells of said outer wall.

49. The method according to claim 40, wherein the Sertoli cells are arranged as a monolayer following said organizing step.

50. A method of transplanting cells comprising the steps of:
forming a biochamber comprising an outer wall of Sertoli cells and a lumen, wherein the outer wall defines the lumen;
incorporating non-Sertoli cells into the lumen of the biochamber; and
transplanting the biochamber containing the non-Sertoli cells into a host.

51. The method according to claim 50, wherein the forming step and incorporating step are carried out simultaneously.
52. The method according to claim 50, wherein the Sertoli cells are arranged as a monolayer.
53. The method according to claim 50, wherein the non-Sertoli cells are therapeutic cells.
54. The method according to claim 50, wherein the non-Sertoli cells are secreting cells.
55. The method according to claim 50, wherein junctional complexes are formed between adjacent Sertoli cells of said outer wall.